



The Future of Free & Open Source Software, seen through US and EU regulations



OpenForum
Europe

I have been asked to talk about the future.

The future is very big but I only have 25 minutes.

I will try to cover three things:

1. Quality of legislation
2. Volume and complexity of obligations
3. International cooperation

0. Context

Ciarán O’Riordan (ciaran@openforumeurope.org)

Many countries are thinking about new software regulations

1. Liability
2. Artificial Intelligence
3. Cybersecurity

The EU has finished writing some big regulations on liability, AI and cybersecurity.

The laws are written but the effects of the laws will begin in 2027.

So, we can't see the effects of these laws yet. But there is a lot of discussion.

During these three years:

The EU will write the official standards and procedures for these laws

The FOSS ecosystem is getting organised to comply with these laws

For example, the EU Cyber Resilience Act (CRA)

The goal is to improve cybersecurity

The writing of the CRA is finished, but it will become **applicable** in 2027

Today, everyone can publish software.

When the CRA becomes applicable (in 2027), you can only publish software **if** you comply

Law is more important than our licences.

Our licences say "*We provide no warranty; We are not liable*"

But if a law says we are liable, then we are liable.

Licences can't say "the law doesn't apply".

Free Software / Open Source Software

Use

Study

Modify

Redistribute

Governments will need to understand how to define free and open source software in legislation.

They also need to understand our development models and how our businesses work.

Governments want:

1. Transparency
2. Autonomy
3. Access to innovation

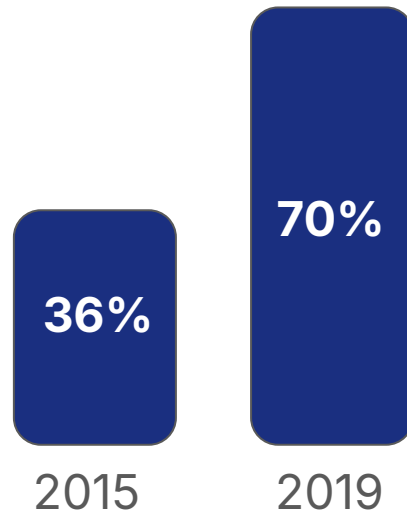
Free and Open Source Software is a framework.

We have spent 40 years creating this framework:

1. Social aspects of how to work together
2. Legal aspects
3. Technical aspects

ENISA (European Union Cybersecurity Agency), 2019:

In normal software packages, how many software components are free and open source software?



Free and open source software is in all devices.

Every industry uses free and open source software.

1. Quality of legislation

In the EU, there were two priorities:

1. Quality
2. Speed

The legislation was proposed in 2022 and the legislation had to be finished by 2024 because there were elections.

Compromises were sometimes made.

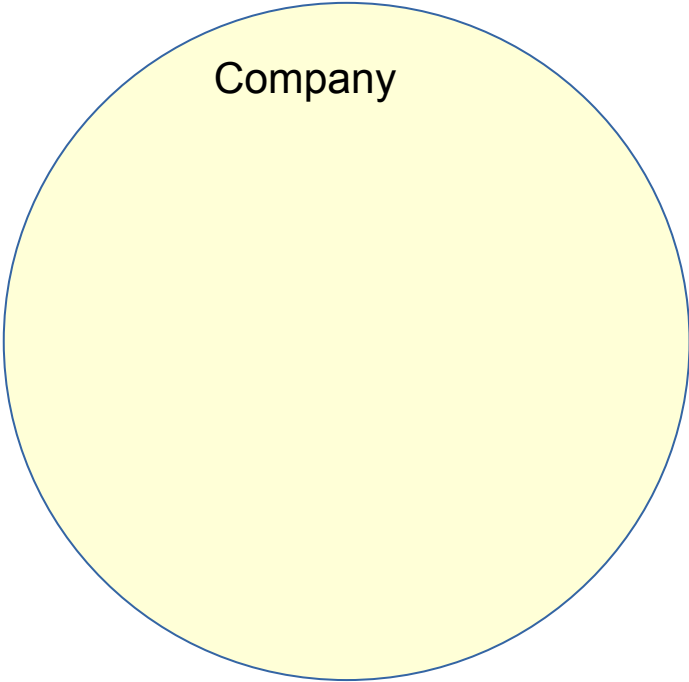
These new laws are market regulation:

If you want to distribute software, you must first do compliance.

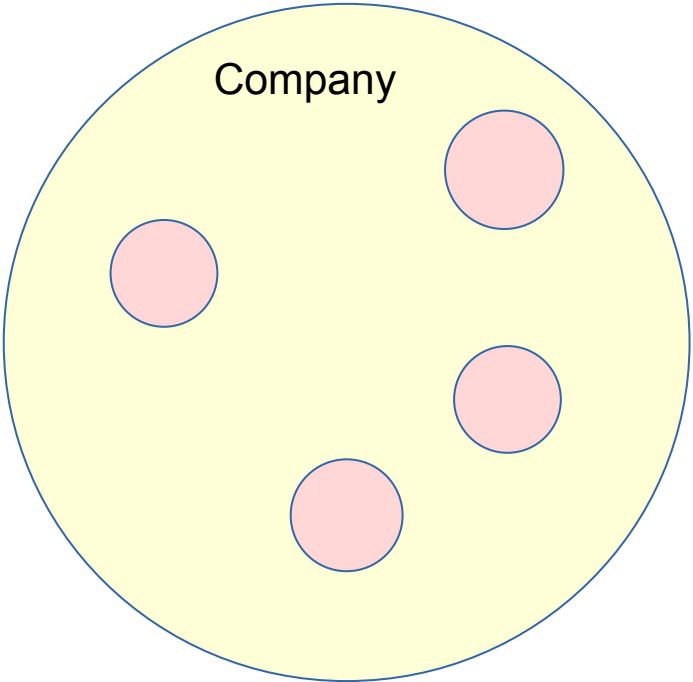
Very different to copyright or patent laws.

We learned that market regulation can create extra problems when software is developed in an open, collaborative way.

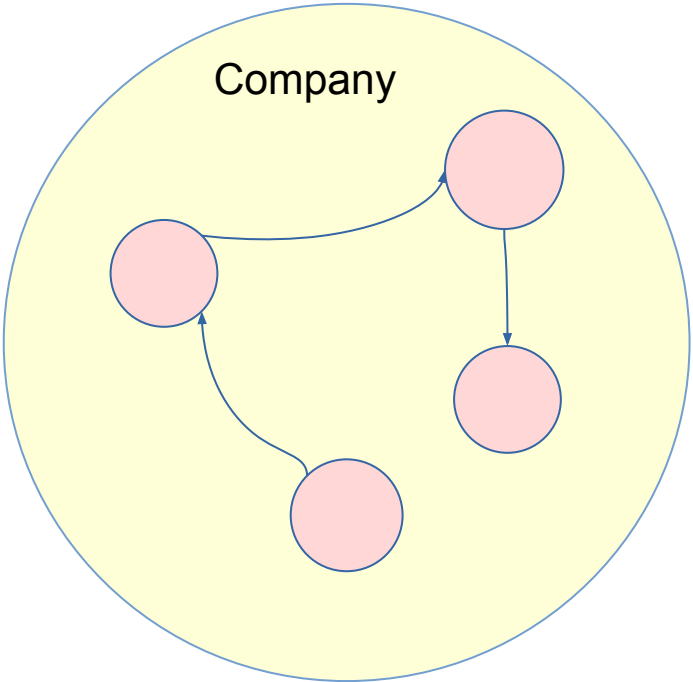
Development inside a company



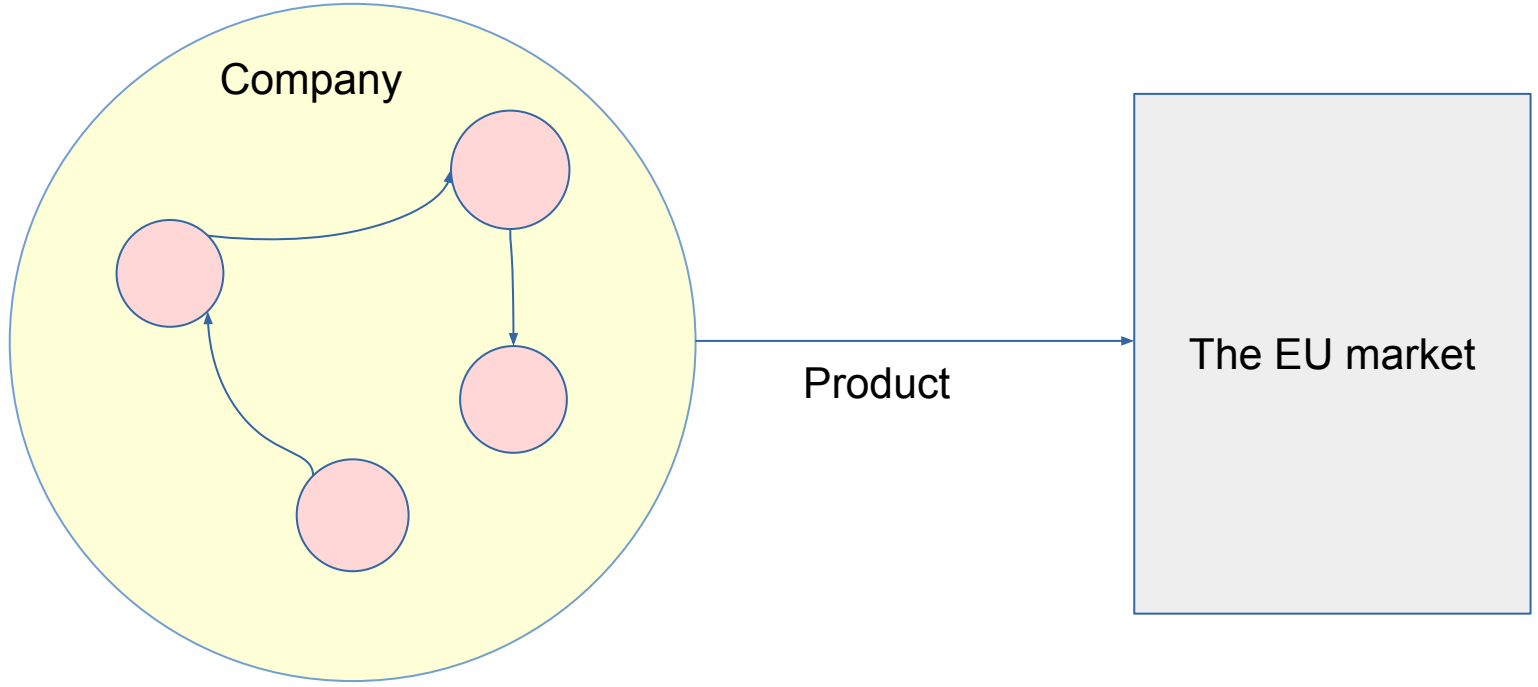
Development inside a company



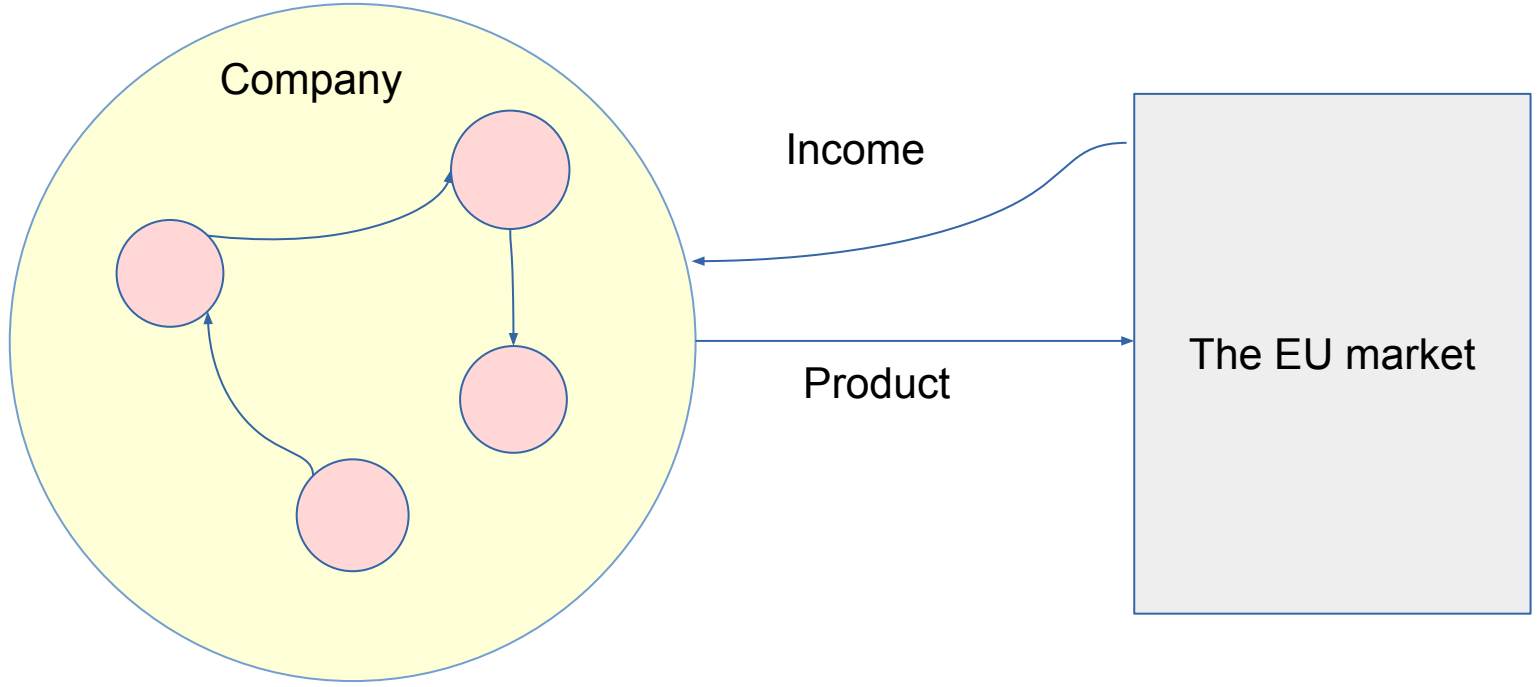
Development inside a company



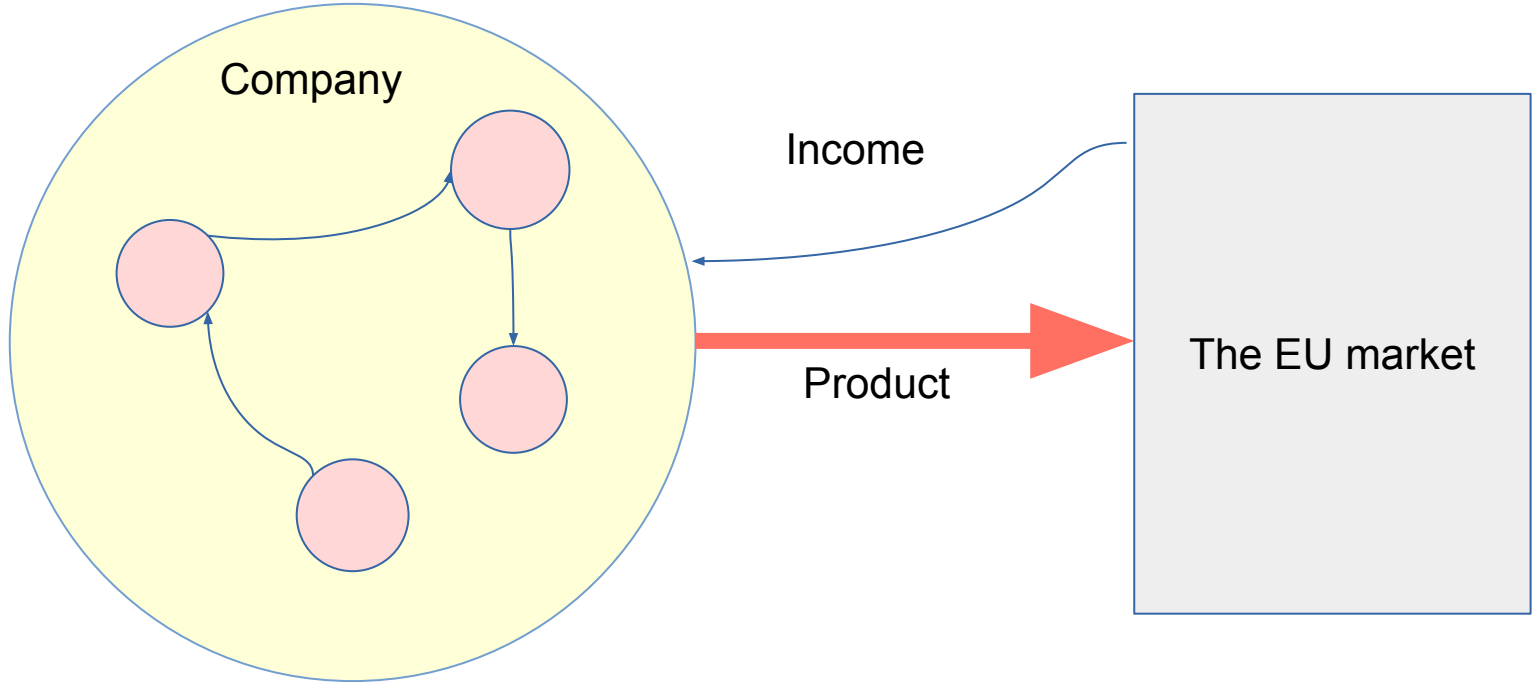
Development inside a company



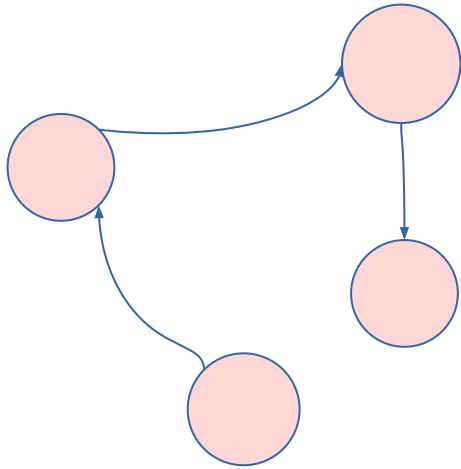
Development inside a company



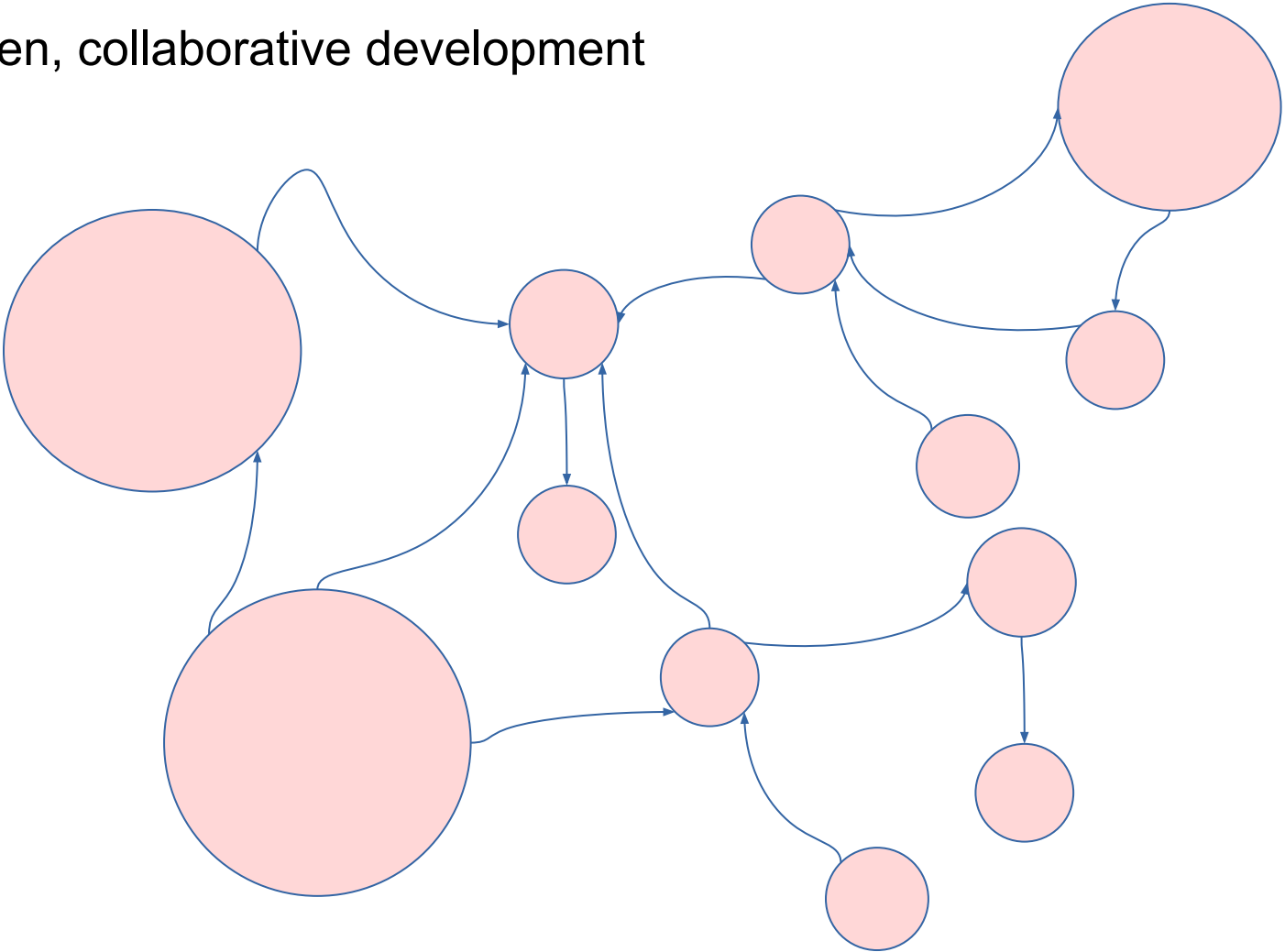
Development inside a company



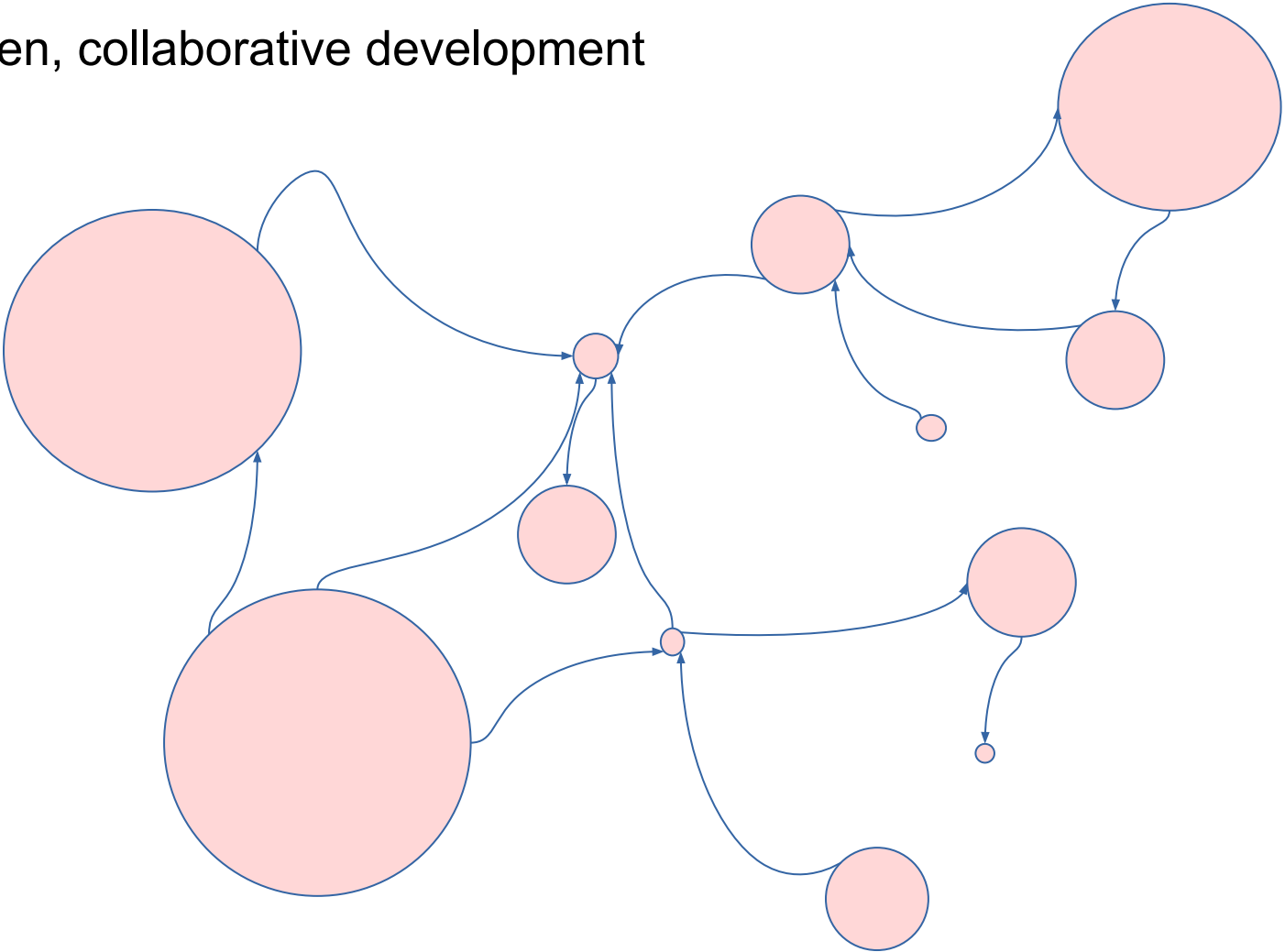
Open, collaborative development



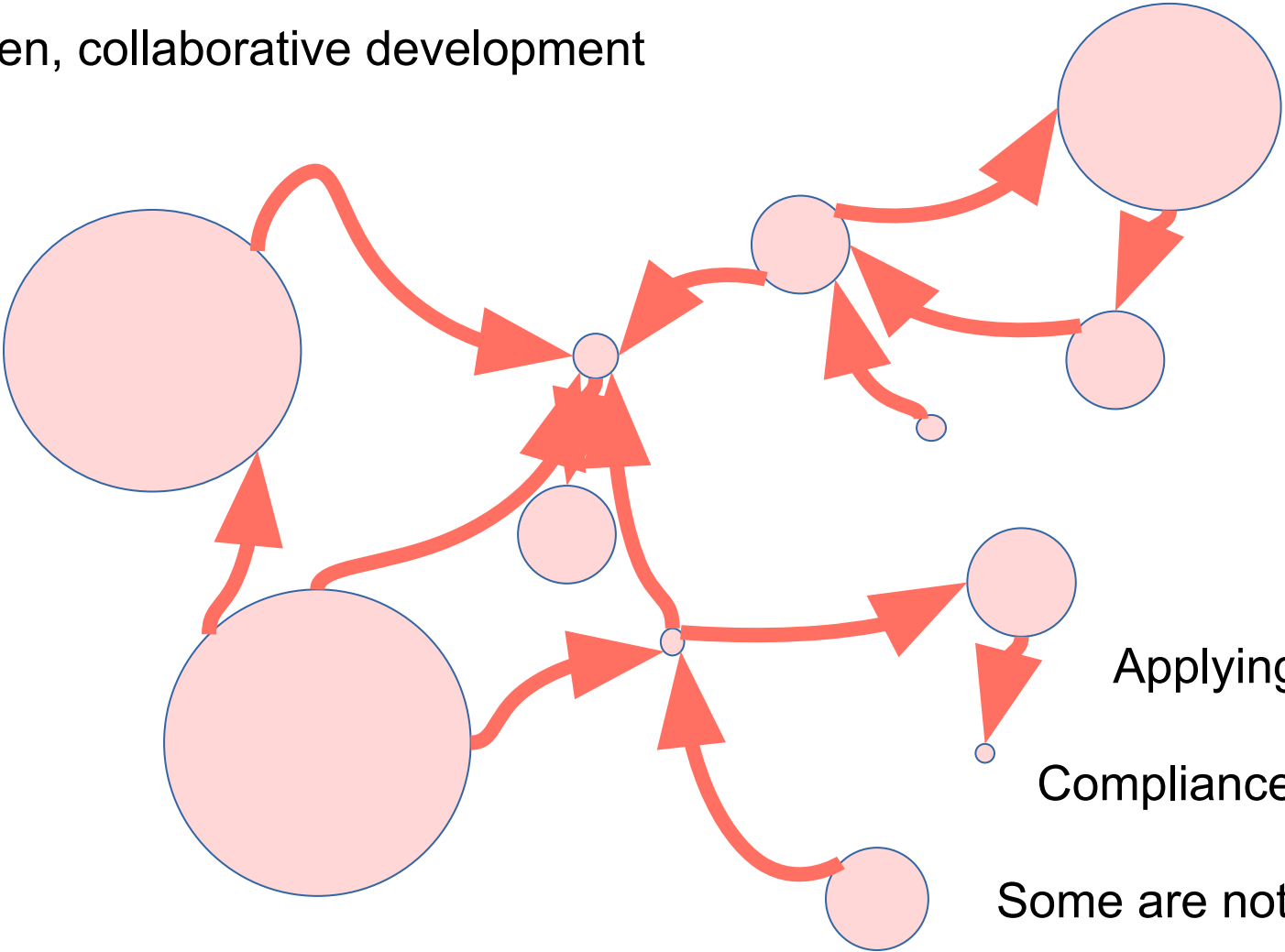
Open, collaborative development



Open, collaborative development



Open, collaborative development



Applying to small and big

Compliance again and again

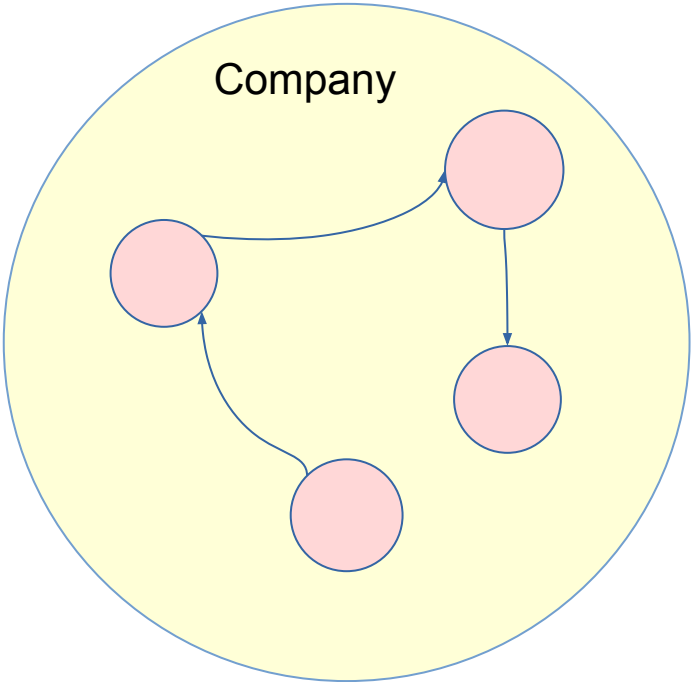
Some are not linked to income

That shows the problem that all our movements are in the market.

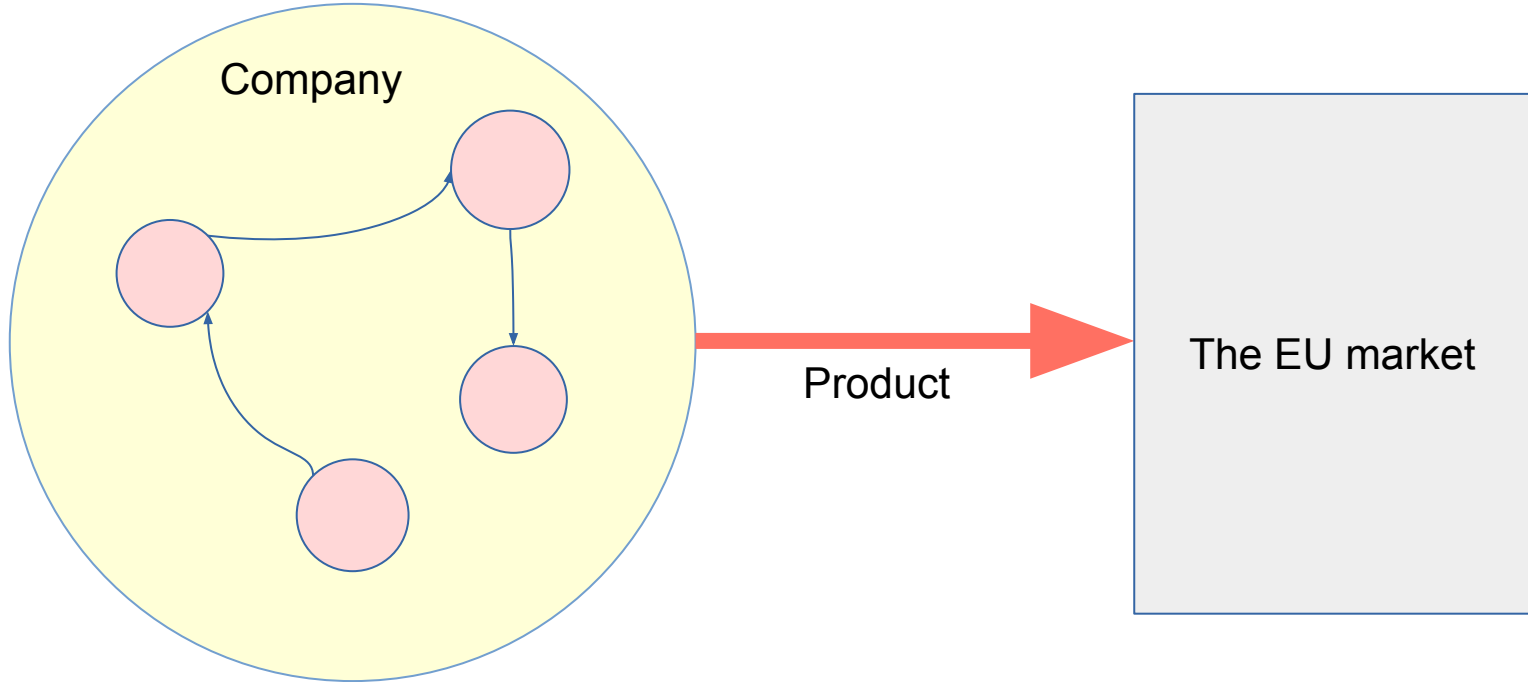
We also face extra work because many companies can distribute or sell free and open source software packages.

And they have to perform compliance on their own work **plus** the work of others.

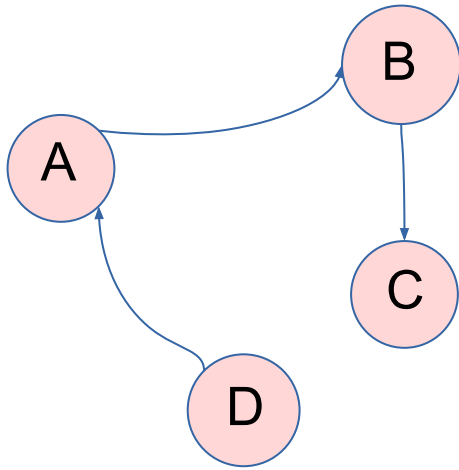
Development inside a company



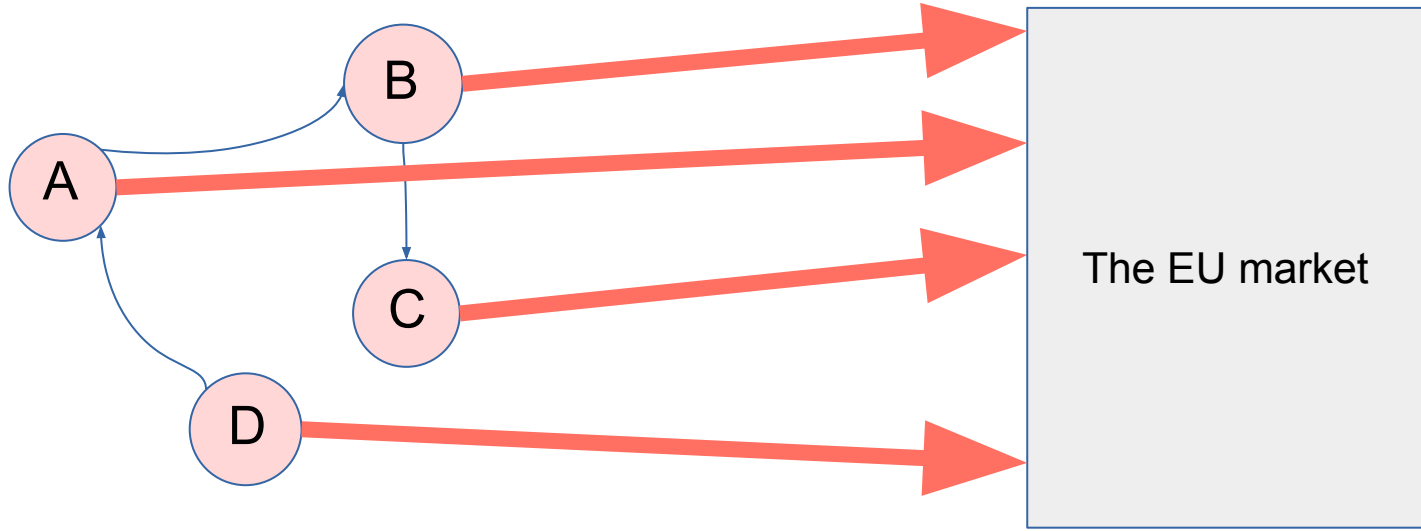
Development inside a company



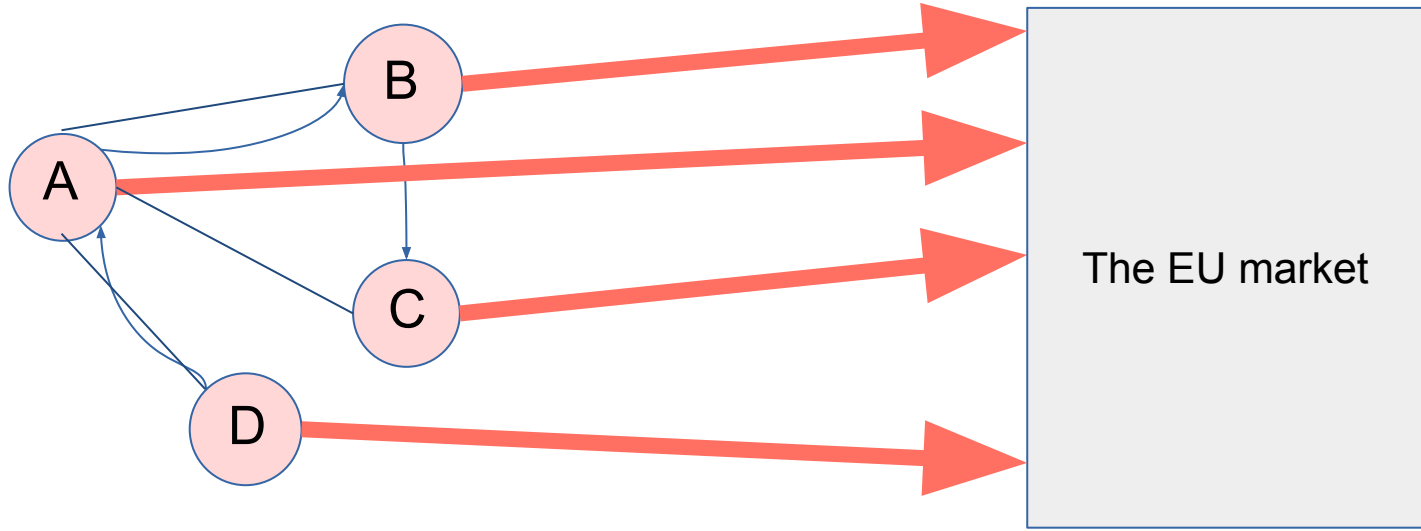
Open, collaborative development



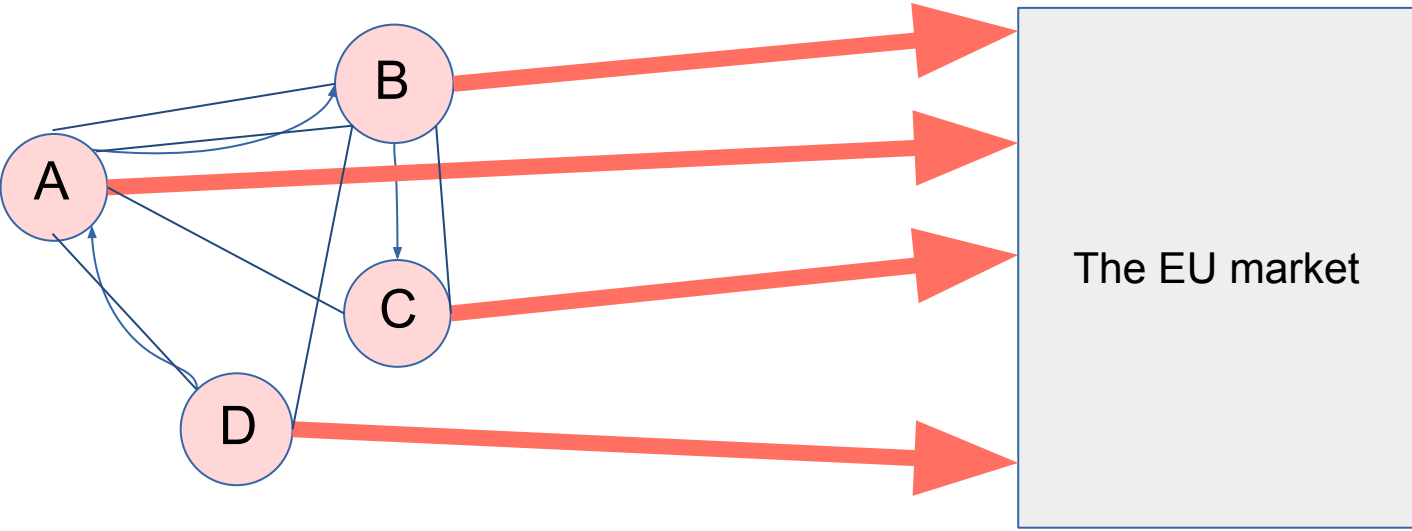
Open, collaborative development



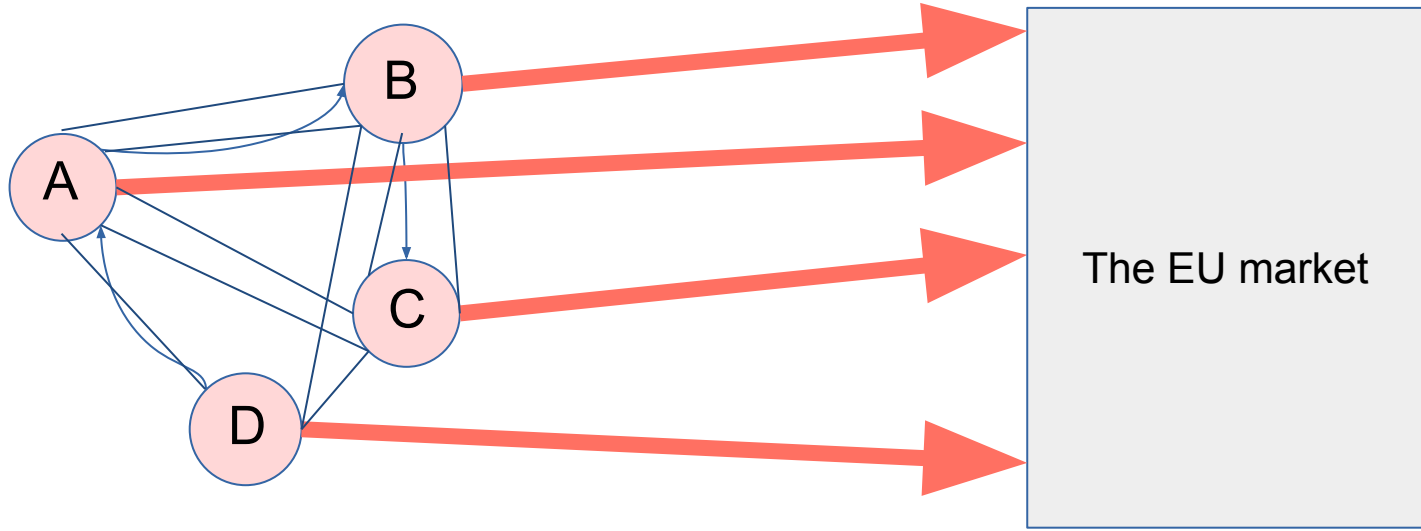
Open, collaborative development



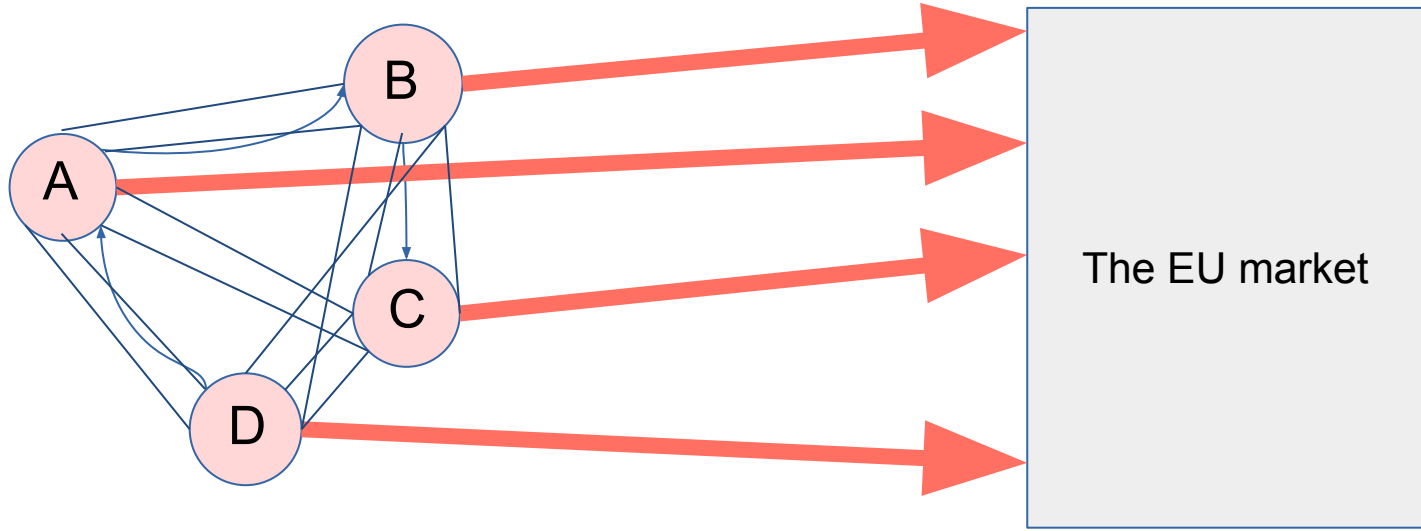
Open, collaborative development



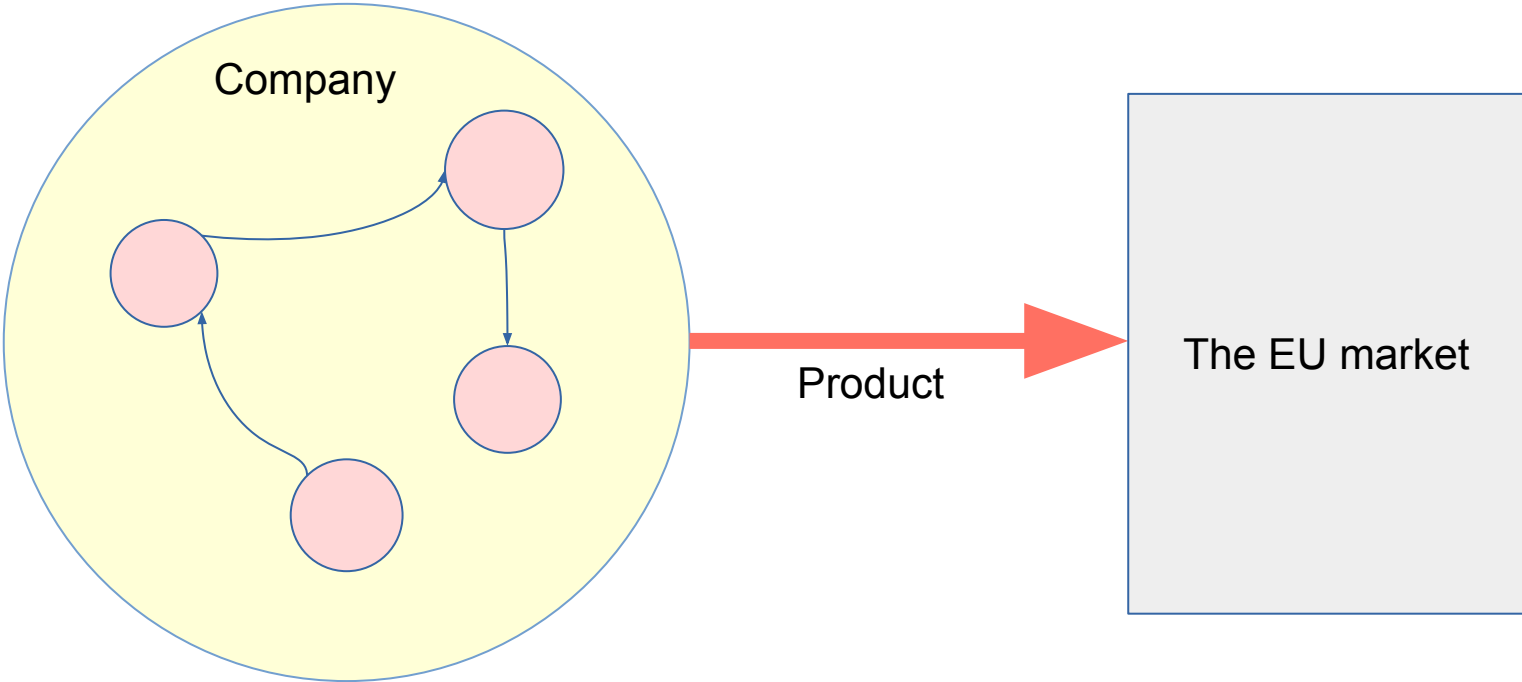
Open, collaborative development



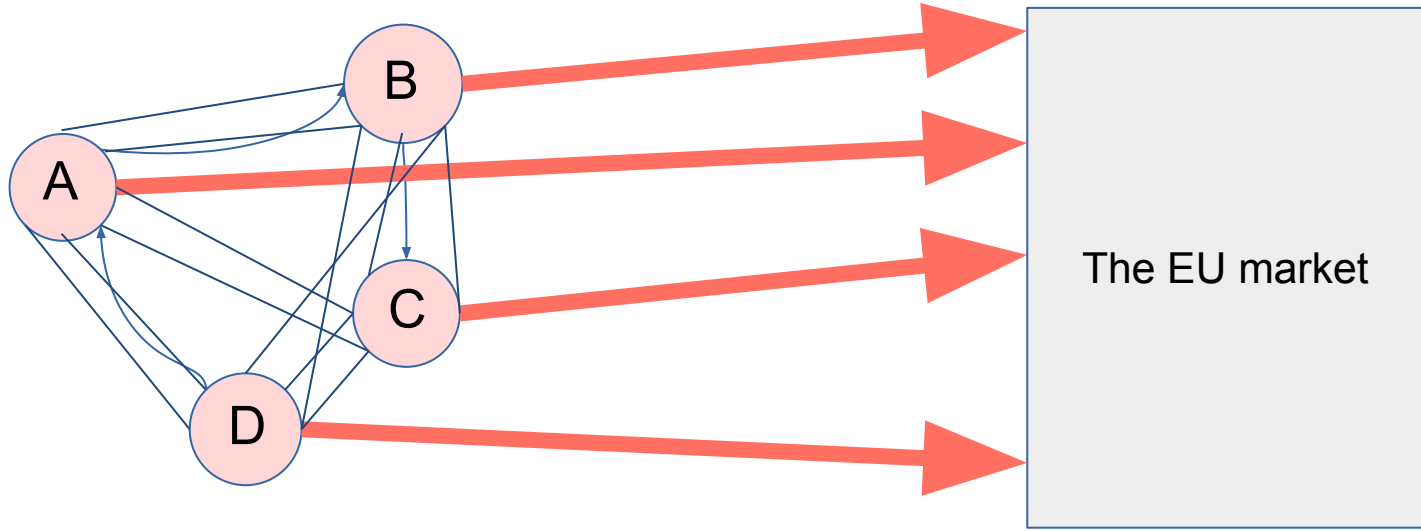
Open, collaborative development



Development inside a company



Open, collaborative development



Potential problem #1:

People will decide to not write software

Potential problem #2:

People will not distribute software, and instead they will provide online services.

Free Software / Open Source Software

Use

Study

Modify

Redistribute

Proprietary Software / Closed Source Software

Use

Study

Modify

Redistribute

Proprietary Software / Closed Source Software

Use

Keep a copy

Study

Look at how it runs

Modify

Check for changes

Redistribute

Online services & APIs

Use

Keep a copy

Study

Look at how it runs

Modify

Check for changes

Redistribute

Online services & APIs

Use

Might disappear

Study

Look at how it runs

Modify

Check for changes

Redistribute

Online services & APIs

Use

Might disappear

Study

Can't even look at it

Modify

Check for changes

Redistribute

Online services & APIs

Use

Might disappear

Study

Can't even look at it

Modify

Can't see if it is changed

Redistribute

Proprietary Software is bad, but there are some advantages compared to online services

Use

Keep a copy

Study

Look at how it runs

Modify

Check for changes

Redistribute

Free Software / Open Source Software is what you deserve

Use

Keep a copy

Study

Look at how it runs

Modify

Check for changes

Redistribute

Potential problem #3:

What if someone must do compliance, but it requires information they don't have?

For example, information about the development. The company who is selling, probably doesn't employ all the developers. The company can't force the developers to provide documentation.

Potential problem #4:

Some laws have a “non-commercial” exemption. But we want to encourage people start businesses.

We want developers to accept grants and bounties and donations. Developers shouldn't refuse money because they don't want to become “commercial” and have lots of compliance work.

We want people to be paid to maintain free and open source software. That will also make it more secure.

Potential problem #5:

Often, people contribute upstream because it's easier. By adding the improvement upstream, it will probably keep working even when the software changes. But for some people, that won't be enough of an incentive to do compliance work.

Upstream might also reject improvements and new contributors because they would have to do compliance work for those improvements.

This would cut off the normal way for free and open source software projects to grow.

Potential problem #6:

If different countries have different requirements, then projects will face a growing number of procedures and packages might only be available in some countries.

2. Volume and complexity of obligations

Potential problem #6:

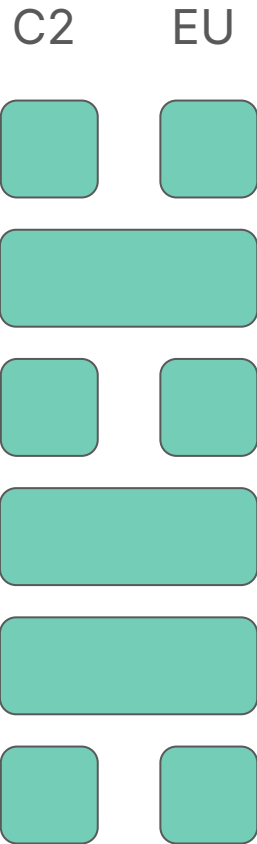
If different countries have different requirements, then projects will face a growing number of procedures and packages might only be available in some countries.

EU

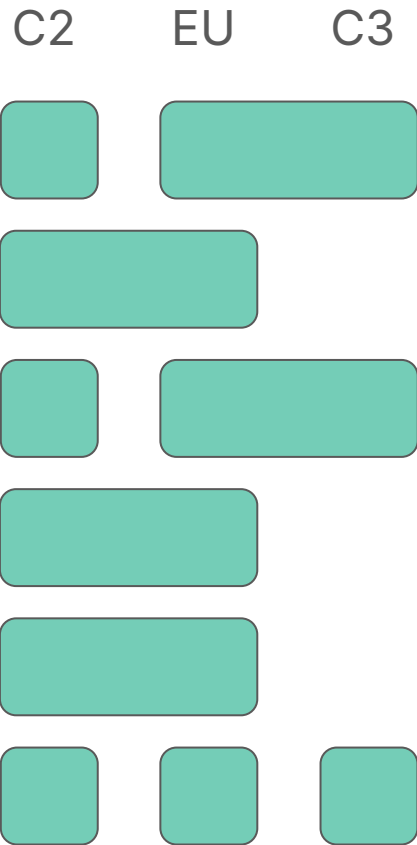
Count: 6



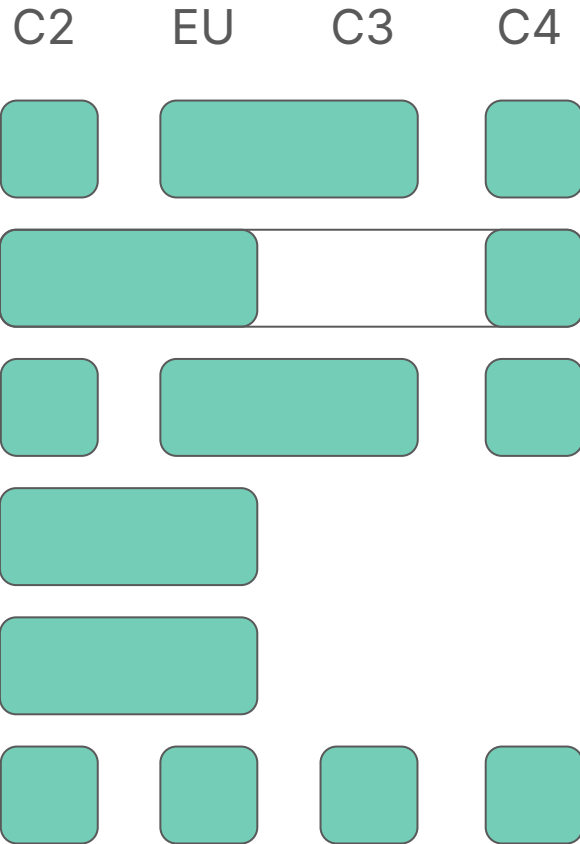
Count: 9



Count: 10

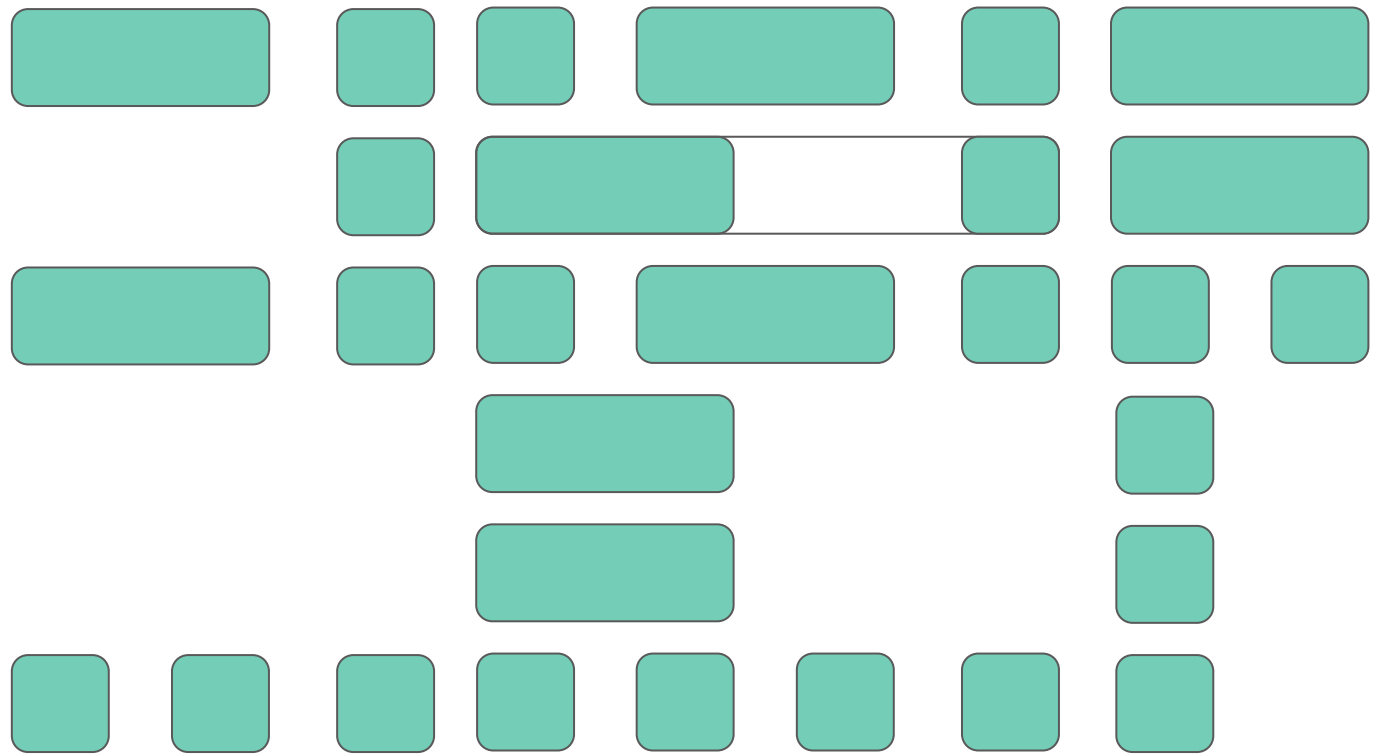


Count: 14



C5 C6 C7 C2 EU C3 C4 C8 C9

Count: 29



C5

C6

C7

C2

EU

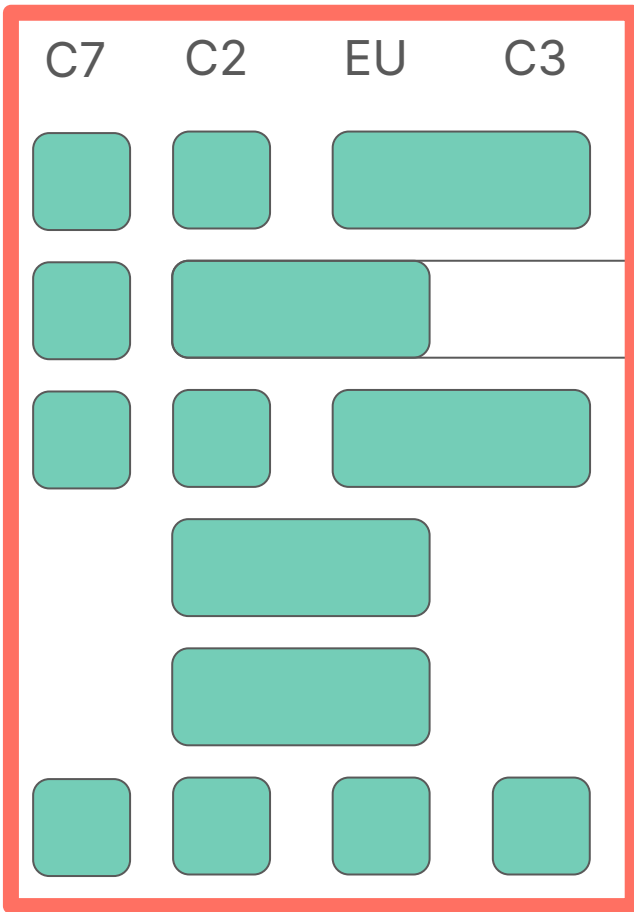
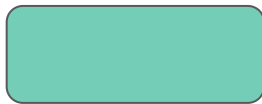
C3

C4

C8

C9

Count: 14



C5

C6

C7

C2

EU

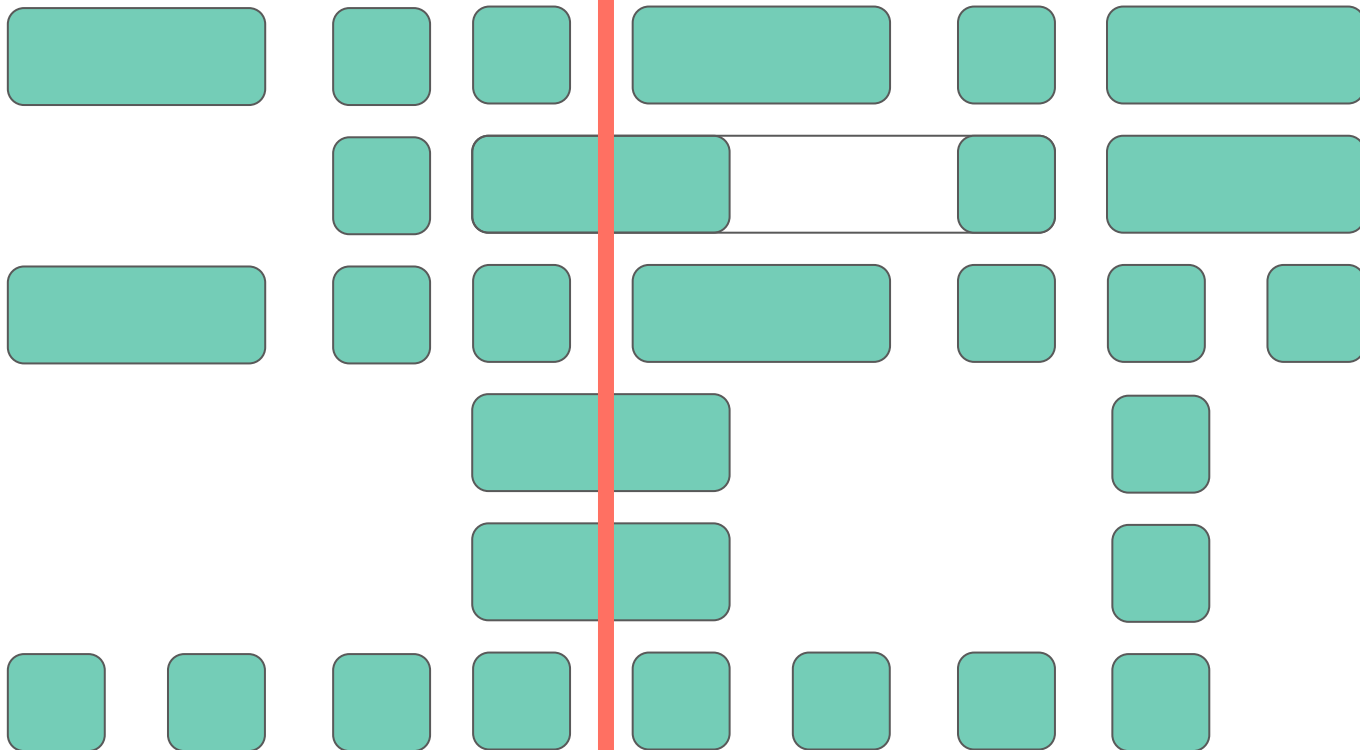
C3

C4

C8

C9

Count: 18



C5

C6

C7

C2

EU

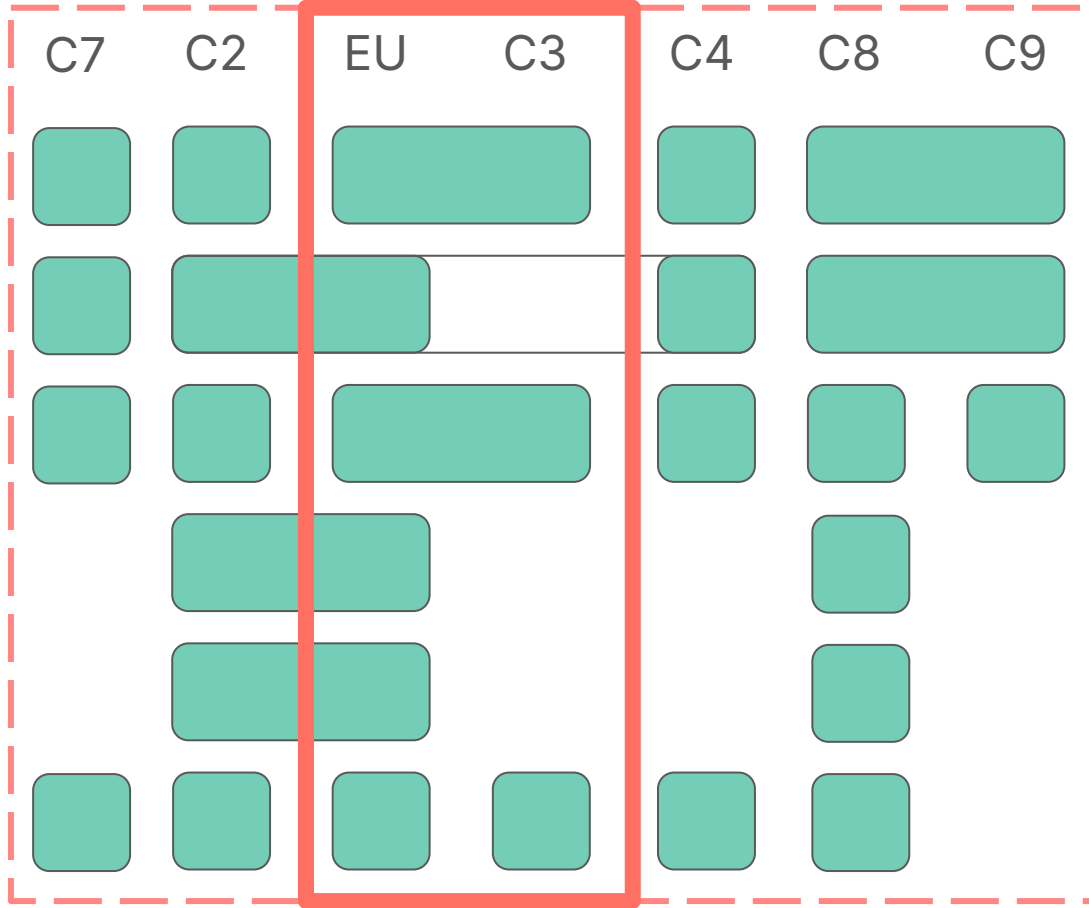
C3

C4

C8

C9

Count: —



And this is why someone from Europe is standing here and is learning Korean:

We're going to have to work together.

For a simpler example, I could use SBOMs (software bill of materials - list of what's in the software).

We could have 5 definitions of the contents and format of an SBOM.

But it would be better if we all agreed on one. I think there are people in the US doing good work on this.

3. International cooperation

I didn't have time to discuss positive regulations.

Laws could:

- Encourage people to release as free and open source software
- Make interoperability mandatory
- Ensure people have access to their data, and data portability

Conclusion (1 of 3): Technical projects.

Develop conventions for what documentation a good software project should provide.

Develop tools to automate as much as possible.

Conclusion (2 of 3): Educating law-makers

Law-makers will want to consult experts from free and open source software businesses and projects. We need to give them a contact point.

And we need to prepare and know what "we" want.

Conclusion (3 of 3): Finally,...

I hope the work in the EU is useful; I hope you can learn from it.

I hope we can stay compatible.

We need to share our knowledge. We need to be aware of what's happening in other parts of the world. We need to work together.

Conclusion (3 of 3)

I hope the work in the EU is useful; I hope you can learn from it.

I hope we can stay compatible.

We need to share our knowledge. We need to be aware of what's happening in other parts of the world. We need to work together.

END



**Let's work
together!**

Ciarán O'Riordan

ciaran@openforumeurope.org